

1/27

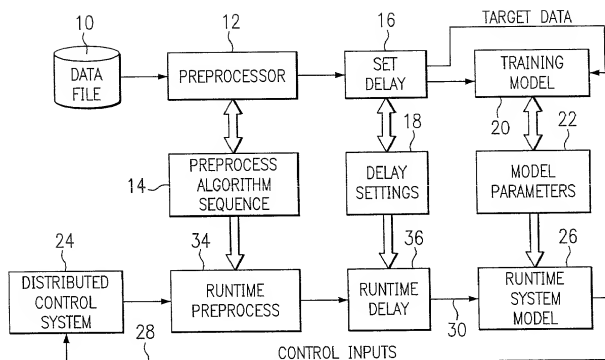


FIG. 1a

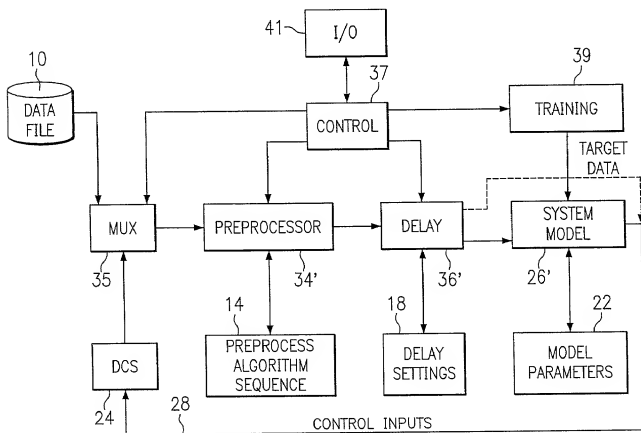


FIG. 1b

2/27

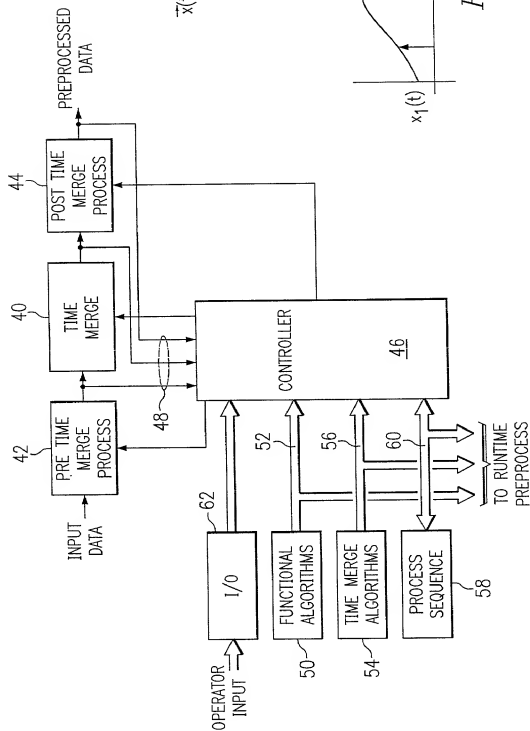


FIG. 2



FIG. 3

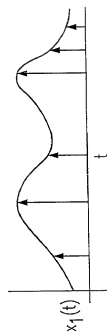


FIG. 4a

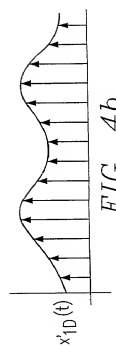


FIG. 4b

3/27

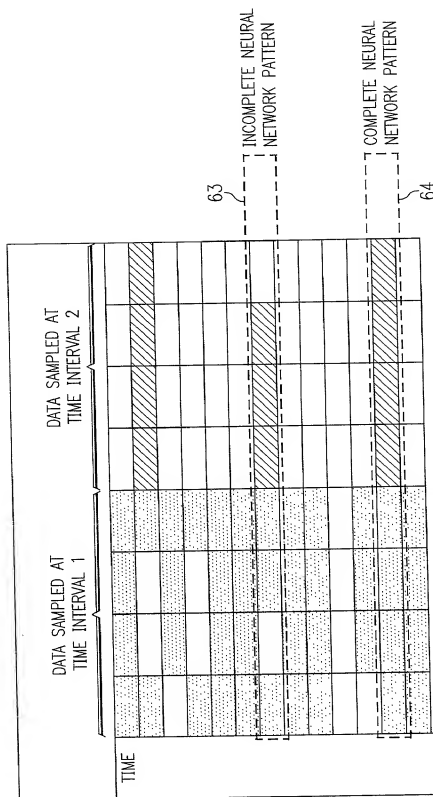


FIG. 5a

4/27

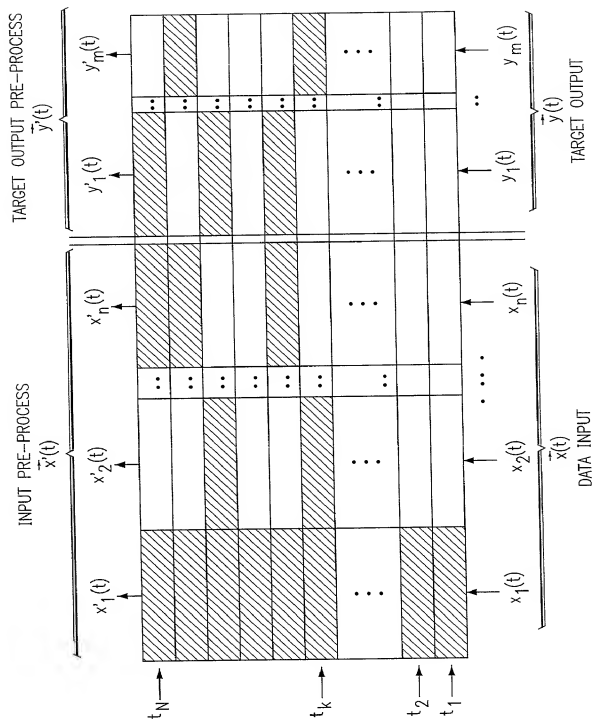


FIG. 5b

5/27

FIG. 5c

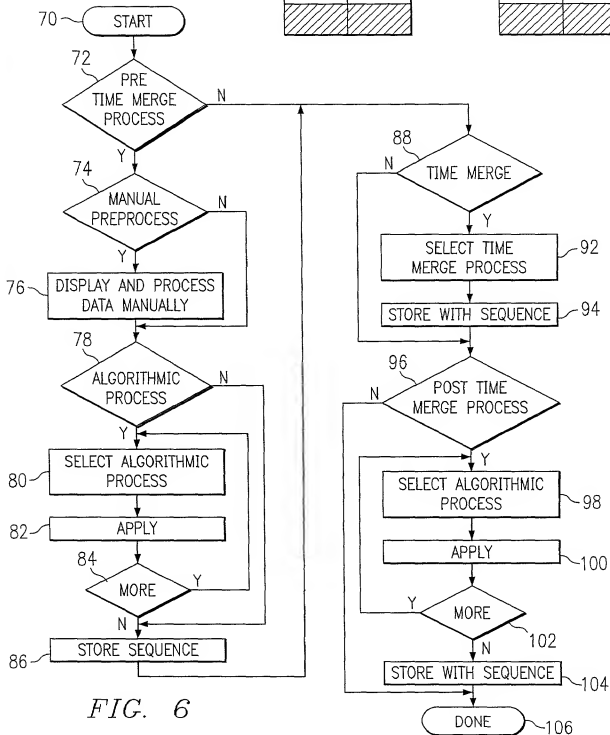
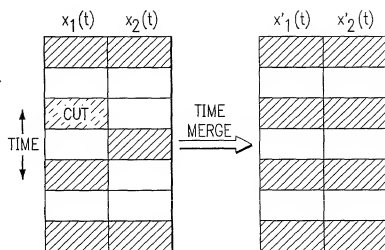
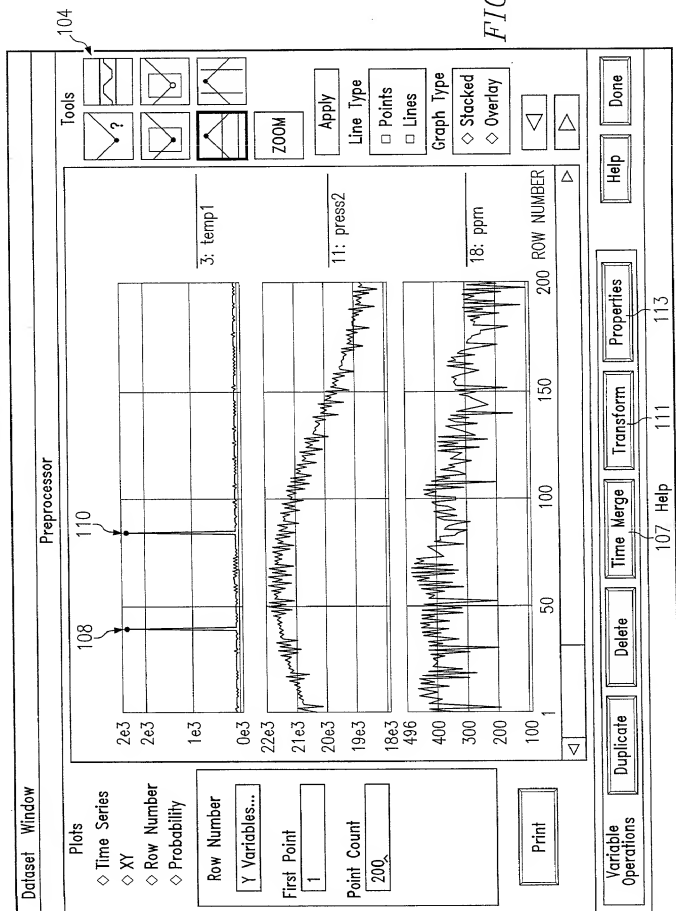


FIG. 6

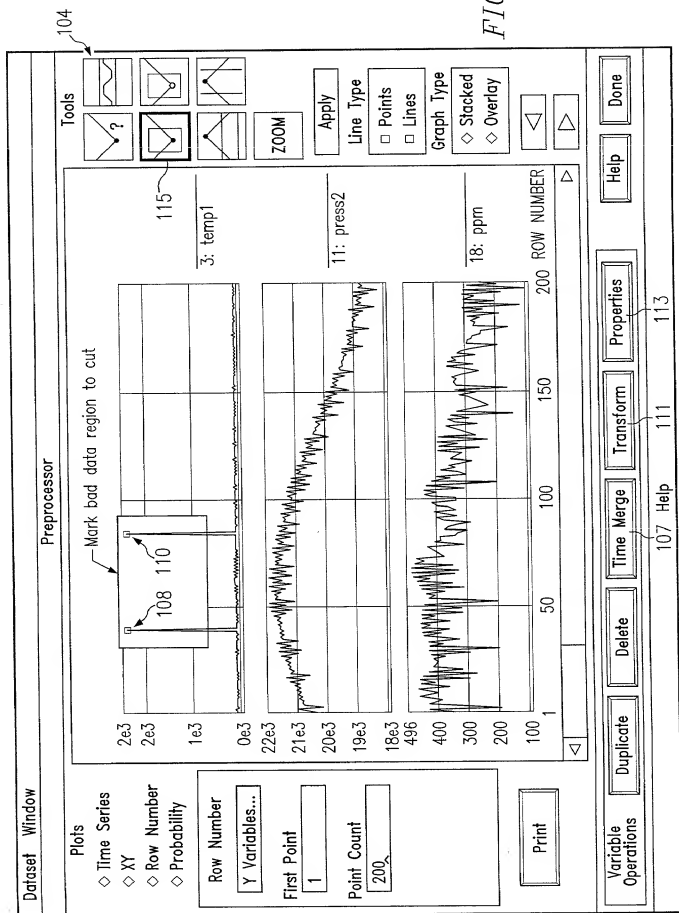
6/27

FIG. 7a



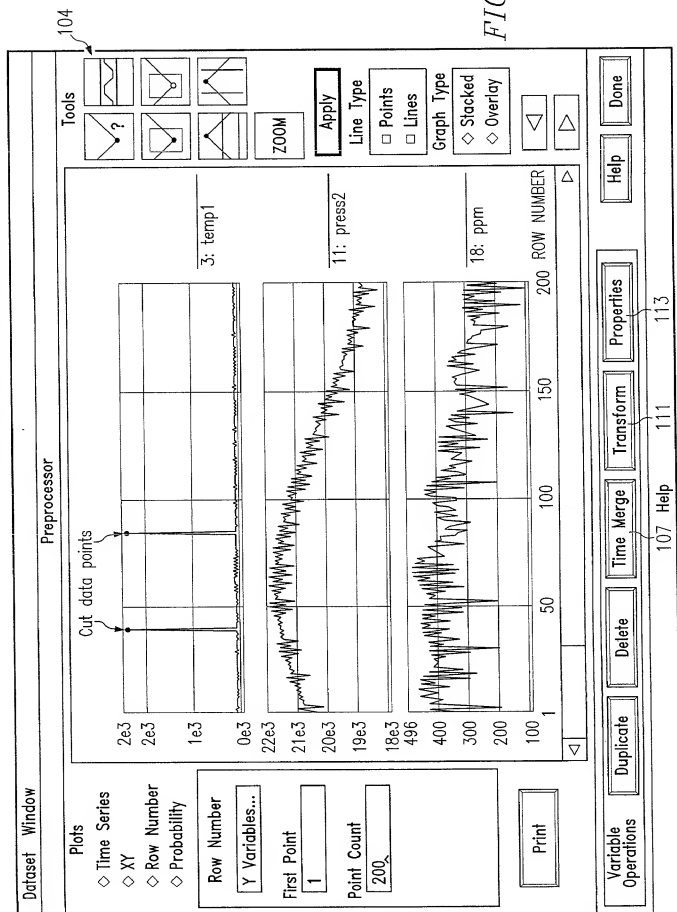
7/27

FIG. 7b



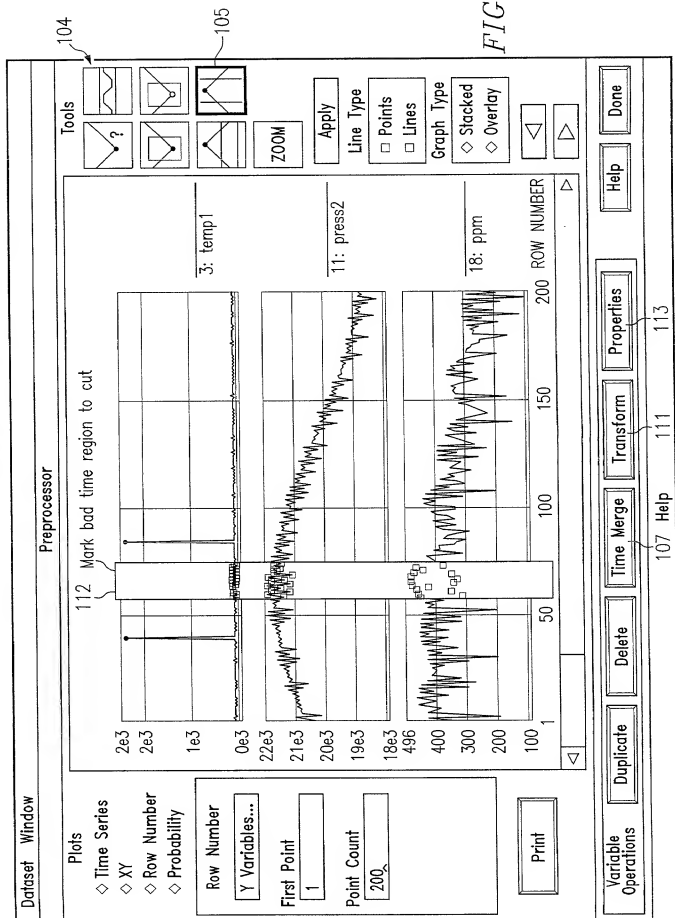
8/27

FIG. 7c



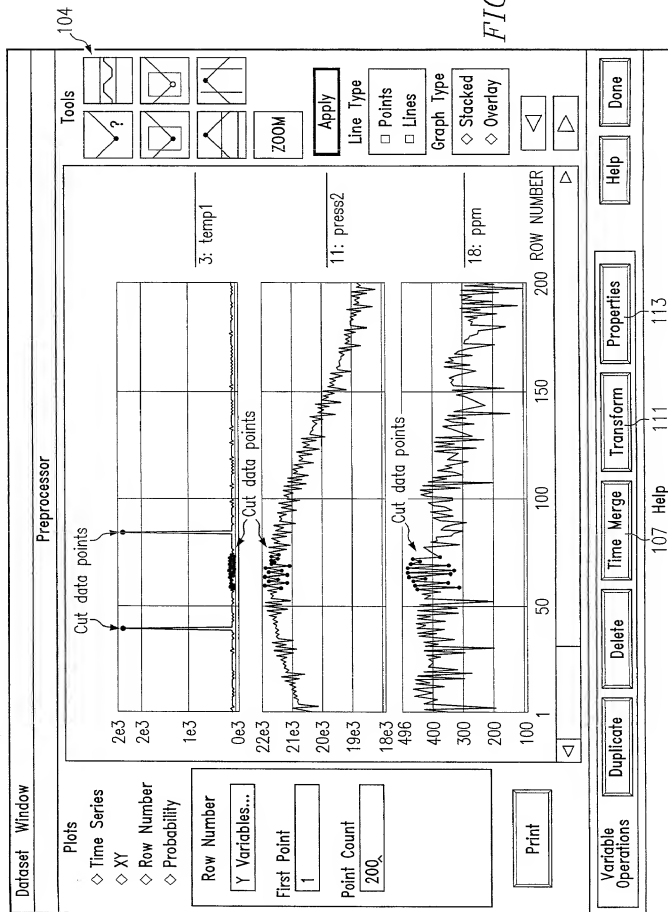
9/27

FIG. 7d



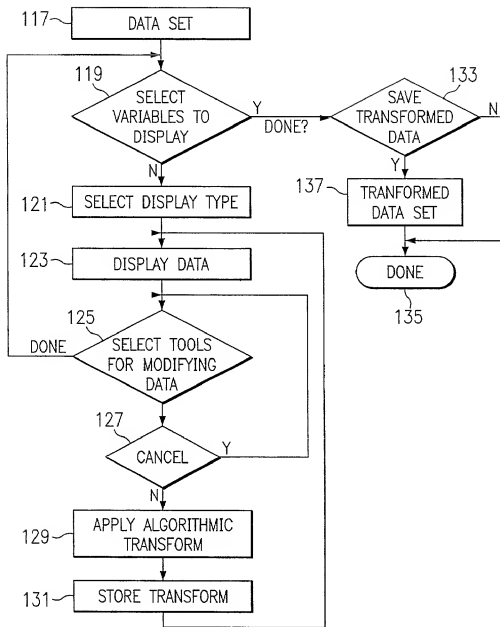
10/27

FIG. 7e



11/27

FIG. 7f



12/27

Variable: _temp1 116

= \$log (!temp1!)

120

7	8	9	+	-	*	/	^	%
4	5	6	<	<=	=	<>	>=	>
1	2	3	space	IF	AND	OR	NOT	MOD
0	.	E	()	,	\$!	

114

VARIABLES:

DATE_1
TIME_1
temp1
press1
DATE 2

118

FUNCTIONS:

exp
frequency
in
log
max

122

Help
Cancel
Done

Help

FIG. 8

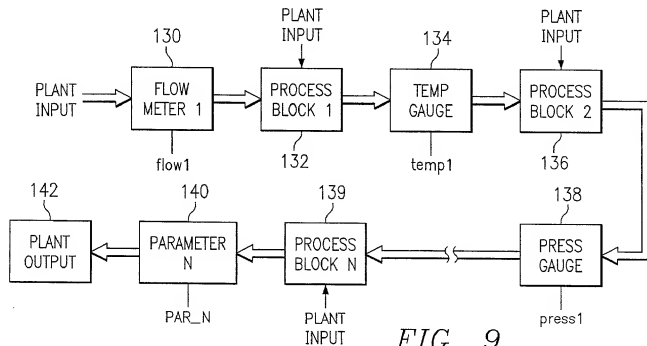


FIG. 9

13/27

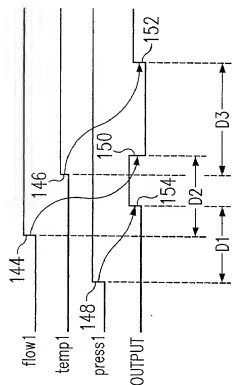


FIG. 10

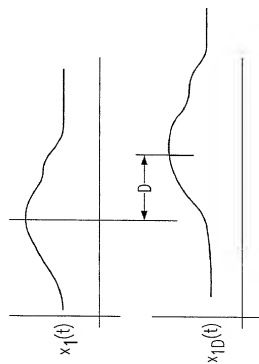


FIG. 11

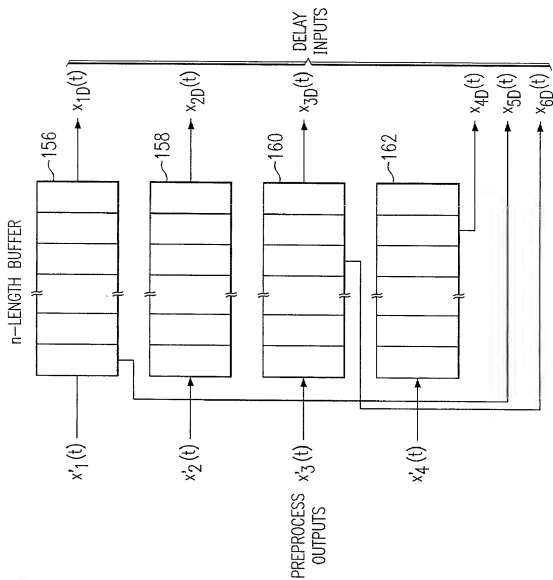
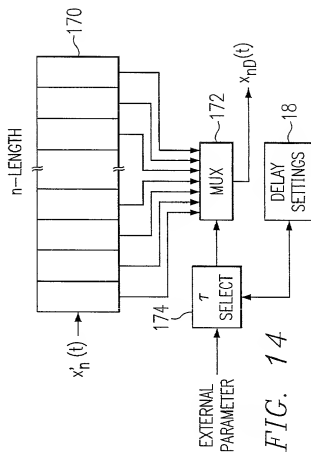


FIG. 12

14/27

FIG. 13

DELAY SELECTION DISPLAY									
TIME	TEMP1	PRESS1	FLOW-RATE1	TEMP2	PRESS2	FLOW-RATE2	TEMP3	PRESS3	FLOW-RATE3
-4.5									
-4.0	INPUT								
-3.5	INPUT								
-3.0	INPUT	INPUT							
-2.5	INPUT	INPUT				INPUT			
-2.0							INPUT		
-1.5								INPUT	
-1.0									
-0.5									
0.0									OUTPUT
0.5									OUTPUT
1.0									OUTPUT
1.5									



15/27

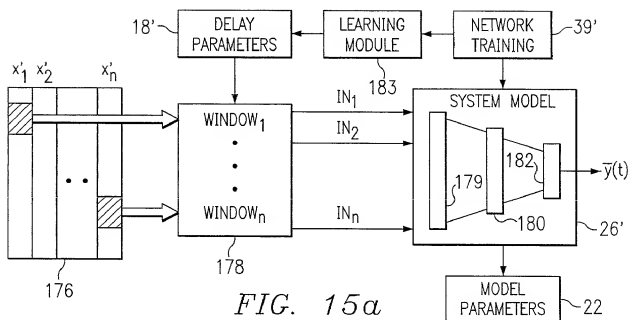


FIG. 15a

FIG. 15b

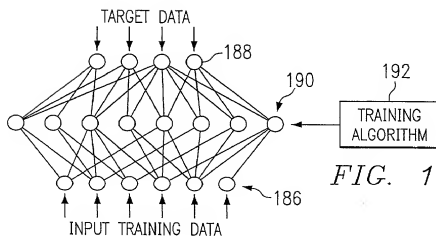
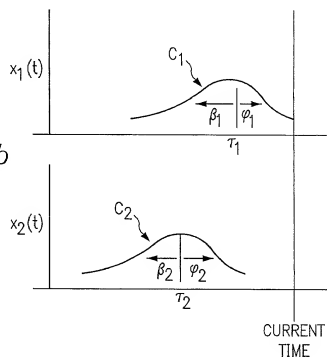


FIG. 16

16/27

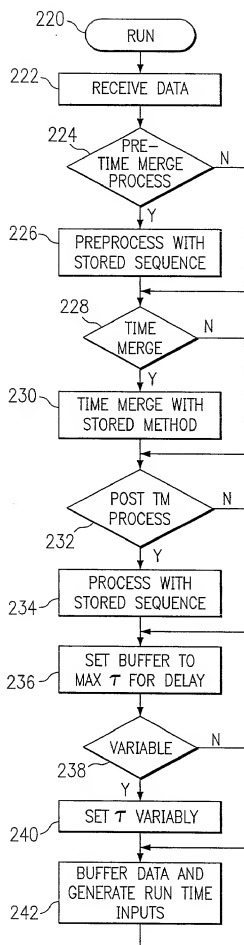


FIG. 18

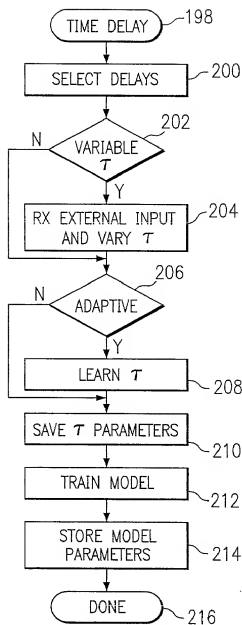
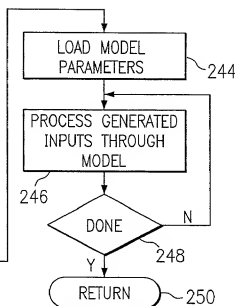


FIG. 17



17/27

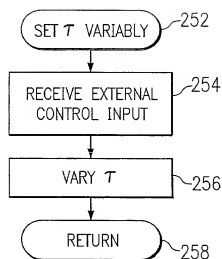


FIG. 19

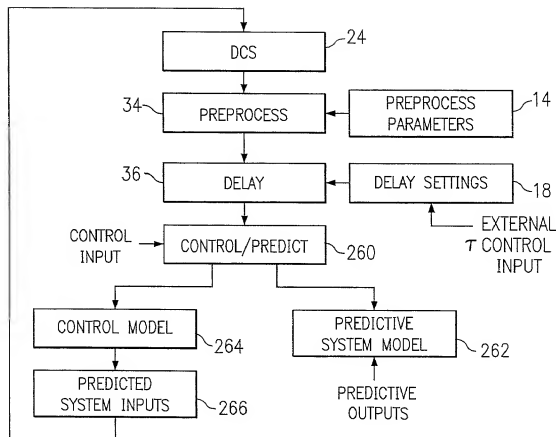
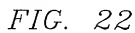
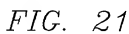


FIG. 20



19/27

FIG. 23

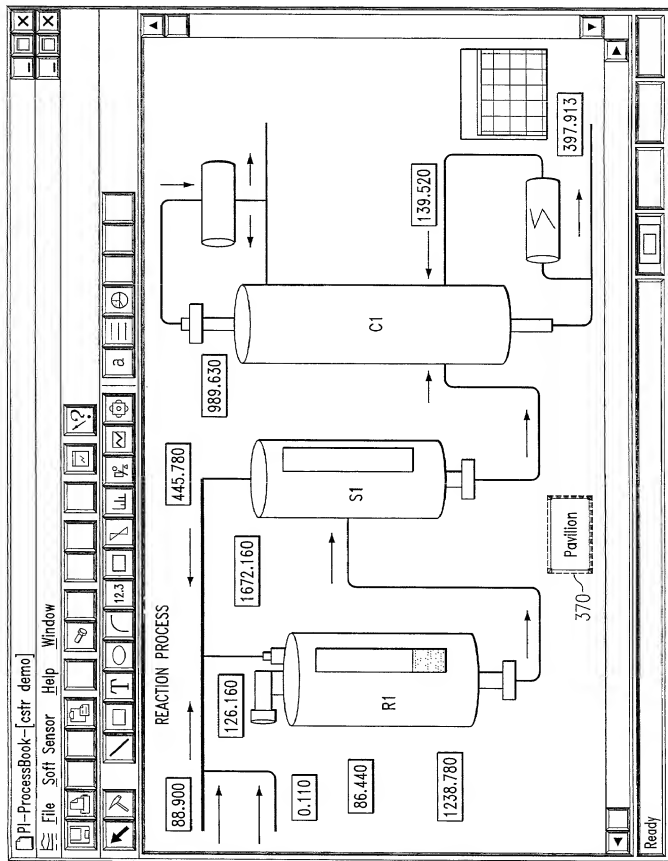


FIG. 24

20/27

Data Extractor Wizard : Select Tags (step 1 of 3)

Using the list of available tags in the PI Historian, select your project tags.

PI Historian Tags		Project Tags
Pav_antifoam	<input data-bbox="401 326 426 357" type="button" value=" < "/> <input data-bbox="453 326 478 357" type="button" value=" > "/>	Pav_flow1
Pav_flow1		Pav_flow2
Pav_flow2		Pav_level1
Pav_level1		Pav_ppma
Pav_ppma		
Pav_ppmp		
Pav_press1		
Pav_press2		
Pav_press3		
Pav_speed		

Mask: Pav*

You can enter a search string in the "Mask" field and press "Refresh" to display that particular group of tags in the "PI Historian Tags" list.

FIG. 25

Data Extractor Wizard : Select Start and End Dates (step 2 of 3)

I would like to query the PI Historian for data

Starting on MAR 4 1998 at time 16 40

and Ending on MAR 5 1998 at time 06 40

at 5 Second Intervals.

FIG. 26

21/27

Data Extractor Wizard : Write Data to Dataset (step 3 of 3)

Would you like to save the Extracted Data to a Dataset?

☐ Save Only

☒ Save and Invoke Soft Sensor Insights with this Dataset loaded

Save my Dataset as:

Click "Finish" to Save your Dataset and Invoke Soft Sensor Insights.

380

FIG. 27

Online VOA Wizard : Select Online Dataset (step 1 of 6)

You'll start creating your VOA by selecting the Prediction Model's OnLine Dataset that you have already "Saved for Runtime" from Process Insights.

Just click the "Browse" button to select the Online Dataset.

Prediction OnLine Dataset

382

386

FIG. 28

22/27

Online VOA Wizard : Map Dataset Variables to Input Tags (step 2 of 6)

Below are your OnLine Dataset's Input Variables to Input Tag mappings that you previously defined in Process Insights.

	Dataset Variable	Input Tag
1	DateTime	DateTime
2	Pav_flow1	Pav_flow1
3	Pav_flow2	Pav_flow2
4	Pav_level1	Pav_level1
5		
6		
7		
8		
9		

To correct a Dataset Variable-Input Tag pair, press "Edit..." to bring up the mapping editor. If you are satisfied with the pairs, press "Next" to continue.

FIG. 29

Online VOA Wizard : Input Tag Read Test (step 3 of 6)

The Wizard's automated "Read Test" has been successful, reading all of the Input Tags in the project from the PI Historian. The table below shows the actual tag values read from PI, as well as the status of each Input Tag.

	Variable	Input Tag	Value	Status
1	Pav_flow1	Pav_flow1	88.9000	GOOD
2	Pav_flow2	Pav_flow2	445.7800	GOOD
3	Pav_level1	Pav_level1	456.1800	GOOD
4				
5				
6				
7				
8				

Please press "Next" to continue.

FIG. 30

23/27

Online VOA Wizard : Map Dataset Variables to Output Tags (step 4 of 6)

Below are your OnLine Dataset's Variables to Output Tag mappings that were assigned as defaults in Process Insights.

	Dataset Variable	Output Tag
1	Pav_ppma_0_P_1	Pav_ppma_0_P_1
2		
3		
4		
5		
6		
7		
8		
9		

To correct a Dataset Variable-Output Tag pair, press "Edit..." to bring up the mapping editor. If you are satisfied with the pairs after assigning the Output Tags, press "Next" to continue.

FIG. 31

Online VOA Wizard : Output Tag Read/Write Test (step 5 of 6)

Excellent! The project Output Tags have been successfully read from and written to the PI Historian. The table has been updated with the new "Write Test" values and statuses.

	Variable	Output Tag	Value	Status
1	Pav_ppma_0_P	Pav_ppma	397.9128	GOOD
2				
3				
4				
5				
6				
7				
8				

390 —
 — 392

Please press "Next" to continue.

24/27

FIG. 32

Online VOA Wizard : Save and Run (step 6 of 6)

You have created a brand new Virtual OnLine Analyzer!

Your VOA will run at intervals, .

Would you like to run your VOA?

☐ Save Only

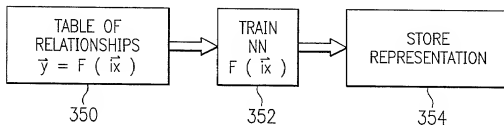
☒ Save and Run

Save my VOA as:

Click "Finish" to Save and Run your VOA.

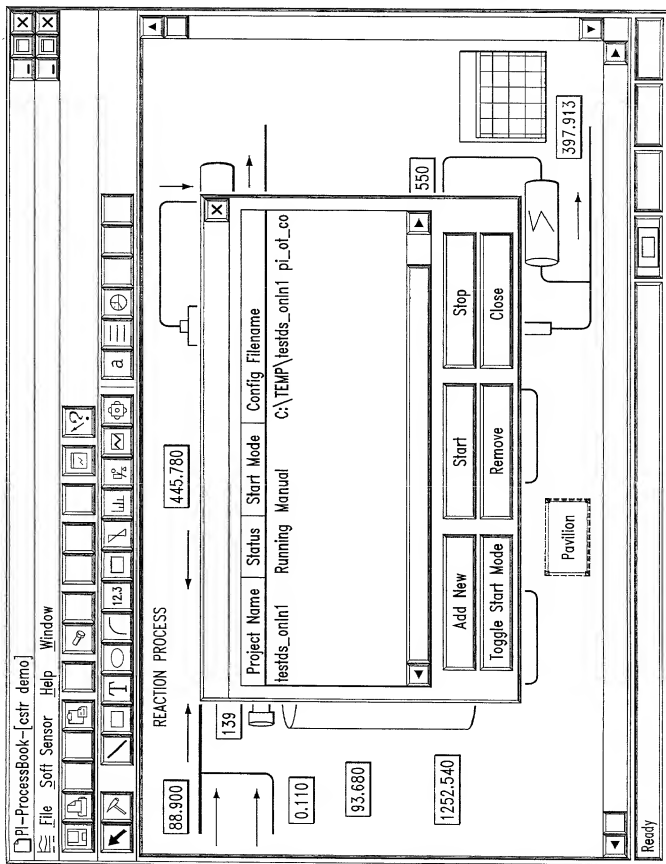
<Back >Finish >Cancel

FIG. 34



25/27

FIG. 33



26/27
FIG. 35

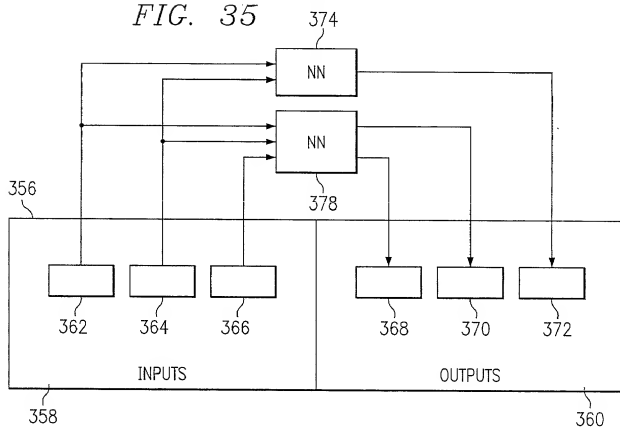


FIG. 36

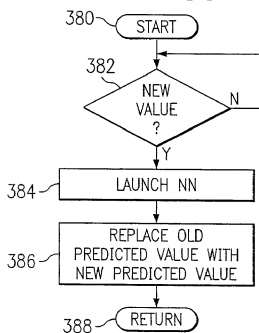


FIG. 37

